

Amendment to the Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any of the original unamended claims presented in this applications at a later date in one or more continuing applications.

1-4. (canceled)

5. (currently amended) A tubular solid oxide fuel cell, comprising:

an air electrode;

an electrolyte formed on at least a portion of the air electrode; and

a ceramic-metal fuel electrode comprising at least 60% nickel and at least 15% zirconia and having a microstructure characterized by accumulated molten particle splats formed on at least a portion of the electrolyte.

6. (previously presented) The fuel cell of claim 5, wherein the fuel electrode composition comprises at least 70% nickel and at least 20% zirconia.

7. (currently amended) ~~The fuel cell of claim 4, wherein the fuel electrode composition comprises~~ A tubular solid oxide fuel cell, comprising:

an air electrode;

an electrolyte formed on at least a portion of the air electrode; and

a ceramic-metal fuel electrode comprising no more than 85% nickel and no more than 40% zirconia and having a microstructure characterized by accumulated molten particle splats formed on at least a portion of the electrolyte.

8. (previously presented) The fuel cell of claim 7, wherein the fuel electrode composition comprises no more than 80% nickel and no more than 30% zirconia.

9. (currently amended) ~~The fuel cell of claim 4~~ A tubular solid oxide fuel cell,
comprising:

an air electrode;

an electrolyte formed on at least a portion of the air electrode; and

a ceramic-metal fuel electrode comprising nickel and zirconia and having a microstructure characterized by accumulated molten particle splats formed on at least a portion of the electrolyte,

wherein a nickel graphite powder is used to obtain at least a portion of the nickel.

10. (previously presented) The fuel cell of claim 9, wherein the nickel graphite powder comprises at least 60% nickel and at least 15% graphite.

11. (previously presented) The fuel cell of claim 10, wherein the nickel graphite powder comprises at least 70% nickel and at least 20% graphite.

12. (currently amended) ~~The fuel cell of claim 4~~ A tubular solid oxide fuel cell,
comprising:

an air electrode;

an electrolyte formed on at least a portion of the air electrode; and

a ceramic-metal fuel electrode comprising nickel and zirconia and having a microstructure characterized by accumulated molten particle splats formed on at least a portion of the electrolyte,

wherein a yttria stabilized zirconia powder is used to obtain at least a portion of the zirconia.

13. (previously presented) The fuel cell of claim 12, wherein the yttria stabilized zirconia powder comprises at least 7 mole percent of yttria.

14. (original) The fuel cell of claim 13, wherein the yttria stabilized zirconia powder comprises at least 8 mole percent of yttria.

15. (original) The fuel cell of claim 1, wherein the electrolyte composition comprises a solid oxide comprising a rare-earth element stabilized zirconia.

16-17. (canceled)

18. (currently amended) A tubular solid oxide fuel cell, comprising:
an air electrode;
an electrolyte formed on at least a portion of the air electrode;
a ceramic-metal fuel electrode having a microstructure characterized by accumulated
molten particle splats formed on at least a portion of the electrolyte; and
a precursor layer formed between the electrolyte and the fuel electrode, the precursor layer composition comprising zirconia and having a thickness of about 5 um to about 20 um.

19. (withdrawn) A method of manufacturing a fuel cell, comprising:
providing an air electrode;
arranging an electrolyte adjacent the air electrode; and
plasma spraying a ceramic-metal fuel electrode powder onto at least a portion of the electrolyte with a plasma spray gun.

20. (withdrawn) The method of claim 17, wherein the powder has a gun feed rate of about 6 grams per minute to about 30 grams per minute, and a distance of about less than 4 inches between the gun and the electrolyte.

21. (withdrawn) The method of claim 17, wherein the spray gun has a discharge voltage of about 30-60 volts, a current of about 400-900 amperes, and a power of about 10-40 kilowatts.

22. (withdrawn) The method of claim 19, wherein the spray gun moves at a rate of about 400 mm/sec to about 700 mm/sec and the electrolyte makes about 2-40 revolutions around the spray gun to form the fuel electrode.